U.S. Global Change Research Program
Global Change Information System

The Global Change Information System is a web-based source of authoritative, accessible, usable, and timely information about climate and global change for use by scientists, decision makers, and the public.

The Global Change Information System (GCIS), being developed by the US Global Change Research Program, is a comprehensive web-based system to deploy and manage global change information. The system will provide access to a broad range of authoritative global change data and information from across the agencies and beyond and will serve a wide variety of audiences.

Its initial focus will be to support the National Climate Assessment (NCA) and will present the NCA reports while also incorporating integrated and linked access to data supporting the NCA, the science behind the conclusions, traceable accounts of the process, images and visualizations - all ensuring open and transparent access to the most authoritative and usable climate information.

US GCRP Mission:

"To build a knowledge base that informs human responses to climate and global change through coordinated and integrated federal programs of research, education, communication, and decision support." - The National Global Change Research Plan 2012-2021

The GCIS will include information from fundamental observational and modeling data and research, to news, tools and applications, and a wealth of climate and global change resources. The GCIS will complement existing agency and external efforts but will be unique and value-added in specific ways (see box).

Increasingly, users have to look across and between the specific products and services provided by individual agencies in order to meet their needs. The GCIS will provide information that is discoverable, accessible, documented and usable to those needing information more than one agency.

Some benefits of the Global Change Information System:

A single web site can lead back to agency global change information across the program

Traceability from key findings of synthesis reports back to their sources: analyses, models, data sets, earth observations and sensors.

A friendly, accessible entry into global change information for non-scientists.

Global, persistent, reusable identifiers for each item

Interagency relationships allow discovery of interdependencies and increase collaboration opportunities across the program.

Agency information mapped into a consistent model with a common vocabulary.

United States
Global Change
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The GCIS, over the next several years, will evolve to incorporate tools, adaptation resources, interactive visualizations, image libraries and a host of useful, authoritative and engaging features and information. In its first iteration however, these specific components will be available and in operation.

1. **NCA 2013 web site**
This is the new web site for the 2013 NCA. It will incorporate an e-book, full html text, image libraries and metadata, links to references and data sources, infographics and visualizations, media information and more.

2. **NCA Author Collaboration Site(s)**
This is a private (limited to the authors) site currently deployed and being used. New capabilities may be added to it over time to support the NCA authors and other GCRP collaboration needs. One advantage of this module is that by accomodating uploading and working with draft material, the information can be uploaded throughout the process with metadata attached. Therefore transitioning material to public-facing pages will be more seamless and allow for greater provenance and metadata accessibility.

3. **NCA Scenarios Maps and Data** There is a short term need to distribute some NCA information to the public and to the authors, but also a long-term need for greater access to underpinning science that can be directly used to address adaptation decision needs and other applied uses.

A foundations for the GCIS, the NCA is
"An inclusive, broad-based, and sustained process for assessing and communicating scientific knowledge of the impacts, risks, and vulnerabilities associated with a changing global climate in support of decision-making across the United States"

A module is being developed that will make accessible to the public, regional and national climatologies and outlooks with downloadable images and metadata. There will also be sea level rise and land use/land cover scenario information.

4. **GCIS Review and Comment System**
This is a system to support the review of major reports, including the 2013 NCA. It will include a web site to allow the public and other reviewers to retrieve reports and submit comments to them, and it will also allow the organization and tracking of author responses to those comments. It is fully customizable and can accomodate many different types of review. Transparency of review processes and public engagement in draft reports is essential for open science principles.

5. **USGCRP Resource Library GCRIO (http://library.globalchange.gov)**
This existing web site provides catalogued access to published information from the USGCRP including all current and past reports, factsheets and other authoritative and summary information

6**. USGCRP Web Site (http://globalchange.gov)**
This web site currently describes the USGCRP and its activities. However, it will evolve to become the front end to the overall GCIS and will include all that is described here and more, including social media, links to emerging science, educational resources and other information of the USGCRP.

7. **GCIS Structured Data Site: (http://data.globalchange.gov)**
Also called the "back-end" this site will provide machine formatted versions of the structured data that make up the contents of the GCIS database. This approach is described in a separate factsheet.